

Figure 1

Sequence alignment of mouse Serca 1, 2 and 3 protein.

5	Sercala	1	MEAAHSKSTEECLSYFGVSETTGLTPDQVKRHLKYGPNELPAEEGKSLWELVVEQFEDL
	Serca2a	1	..N..T.TV..V.GH..N.S..SLE..KLK.RW.S.....T.L..I.....
	Serca2b	1	..N..T.TV..V.GH..N.S..SLE..KLK.RW.S.....T.L..I.....
	Serca3a	1	..E..LL.AADV.RR.S.TAEG..SLE..TDAR.R.....T.....
	Serca3b	1	..E..LL.AADV.RR.S.TAEG..SLE..TDAR.R.....T.....
10	Serca3c	1	..E..LL.AADV.RR.S.TAEG..SLE..TDAR.R.....T.....
	Sercala	61	LVRILLAAACISFVLAWFEEGEETVTAFVEPVFILLILIANAIVGWQERNAENAIEALK
	Serca2a	61	.....I.....V.....
	Serca2b	61	.....I.....V.....
15	Serca3a	61	.....LV.....T.....L.M..V.....S.....
	Serca3b	61	.....LV.....T.....L.M..V.....S.....
	Serca3c	61	.....LV.....T.....L.M..V.....S.....
	Sercala	121	EYEPEMGKVYRADRKSQRIKARDIVPGDIVEAVGDKVPADIRILSIKSTTLRVDQSL
20	Serca2a	121	.....Q.....K.....I.....LT.....
	Serca2b	121	.....Q.....K.....I.....LT.....
	Serca3a	121	.....I.S...G....R.....L.LIE.....
	Serca3b	121	.....I.S...G....R.....L.LIE.....
	Serca3c	121	.....I.S...G....R.....L.LIE.....
25	Sercala	181	TGESVSVIKHTDPVPDPRAVNQDKKNMLFSGTNTIAAGKAVGIVATTGVSTEIGKIRDQMA
	Serca2a	181	.....M.V.VA..N.....E.V
	Serca2b	181	.....M.V.VA..N.....E.V
	Serca3a	181	.....T...AI.....S..L.VAVA..LQ..L...S...
30	Serca3b	181	.....T...AI.....S..L.VAVA..LQ..L...S...
	Serca3c	181	.....T...AI.....S..L.VAVA..LQ..L...S...
	Sercala	241	ATEQDKTPLQQKLDEFGEQLSKVISLICVAVWLINIGHFNDPVHGGSWFRGAIYYFKIAV
	Serca2a	241	....ER.....I..I.....I.....
35	Serca2b	241	....ER.....I..I.....I.....
	Serca3a	241	..V.PER....R....R..HA..V.....V.....A.A.....L..V.....
	Serca3b	241	..V.PER....R....R..HA..V.....V.....A.A.....L..V.....
	Serca3c	241	..V.PER....R....R..HA..V.....V.....A.A.....L..V.....
40	Sercala	301	ALAVAAIPEGLPAVITTCALGTRRMAKKNAIVRSLPSVETLGCTSVICSDKTGTLTTNQ
	Serca2a	301	.....
	Serca2b	301	.....
	Serca3a	301	.....R.....
	Serca3b	301	.....R.....
45	Serca3c	301	.....R.....
	Sercala	361	MSVCKMFIIDKVDGDVCSLNEFSITGSTYAPEGEVLKNDKPVRAQYDGLVELATICALC
	Serca2a	361	....R...L...E..T.....I...Q.D...KCH.....
	Serca2b	361	....R...L...E..T.....I...Q.D...KCH.....
50	Serca3a	361	....R..VVAEAEAGT.R.H..T.S.T..T....RQGEQ...C..F.....
	Serca3b	361	....R..VVAEAEAGT.R.H..T.S.T..T....RQGEQ...C..F.....
	Serca3c	361	....R..VVAEAEAGT.R.H..T.S.T..T....RQGEQ...C..F.....
	Sercala	421	NDSSLDFNETKGVYEVGEATETALTLVEKMNVNTEVRSLSKVERANACNSVIRQLMK
55	Serca2a	421	...A..Y..A.....C.....D..LKG..I.....K.....
	Serca2b	421	...A..Y..A.....C.....D..LKG..I.....K.....
	Serca3a	421	...A..Y..A.....C.....D..DLKG..R..G.....K...R
	Serca3b	421	...A..Y..A.....C.....D..DLKG..R..G.....K...R
	Serca3c	421	...A..Y..A.....C.....D..DLKG..R..G.....K...R

Sercala	481	KEFTLEFSRDRKSMSSVYCS	PAKSSRAAVGNKMFVKGAPEGVIDRCNYVRVGTT	TRVPLTGP							
Serca2a	481	.....T.N.P..TSMS-	.....THI..S.K..M.PG						
Serca2b	481	.....T.N.P..TSMS-	.....THI..S.K..M.PG						
Serca3a	481	.....T.TRADPKVQ.S.....	S..E..SS...SRTA..STT							
5	Serca3b	481	.....T.TRADPKVQ.S.....	S..E..SS...SRTA..STT						
	Serca3c	481	.....T.TRADPKVQ.S.....	S..E..SS...SRTA..STT						
Sercala	541	VKEKIMSVIKEWTGRDTLRLA	TRDTPPKREEMVLDDSAKFMEYEMDLTFVG	VVGML							
Serca2a	540	..Q.....R..S.S.....H.N.L.....H.E..N.IK..TN.....C...									
10	Serca2b	540	..Q.....R..S.S.....H.N.L.....H.E..N.IK..TN.....C...								
	Serca3a	541	SR.H.LAK.RD..S.S.....RK.D.H..CSR.VQ..T.....C...								
	Serca3b	541	SR.H.LAK.RD..S.S.....RK.D.H..CSR.VQ..T.....C...								
	Serca3c	541	SR.H.LAK.RD..S.S.....RK.D.H..CSR.VQ..T.....C...								
15	Sercala	601	DPPRKEVTGSIOLCRDAGIRVIMITGDNKGT	TAIAICRRIGIFSENEEVTDRAYTGREFDD							
Serca2a	600	....I..AS.VK..Q.....V.....	GQD.D..SK.F.....E							
Serca2b	600	....I..AS.VK..Q.....V.....	GQD.D..SK.F.....E							
Serca3a	601	....P..AAC.TR.SR.....V.....	V.....L..GDT.D.LGK.....							
Serca3b	601	....P..AAC.TR.SR.....V.....	V.....L..GDT.D.LGK.....							
20	Serca3c	601	....P..AAC.TR.SR.....V.....	V.....L..GDT.D.LGK.....						
Sercala	661	LPLAEQREACRRACCFARVEPSHKS	KIVEYLQSYDEITAMTGDGVNDAPALKAEIGIAM								
Serca2a	660	.SPSA..D..LN.R.....F..F.....	S.....								
Serca2b	660	.SPSA..D..LN.R.....F..F.....	S.....								
25	Serca3a	661	.SPEQ..Q..T.R.....A..R..N..FN.....								
	Serca3b	661	.SPEQ..Q..T.R.....A..R..N..FN.....								
	Serca3c	661	.SPEQ..Q..T.R.....A..R..N..FN.....								
Sercala	721	GSGTAVAKTASEMVLADDNF	STIVAAVEGRAIYNM	KQFIRYLISSNVGEVVCIFLTAA							
30	Serca2a	720	.....							
Serca2b	720	.....								
Serca3a	721	.....S.A....S....AS.....	I							
Serca3b	721	.....S.A....S....AS.....	I							
Serca3c	721	.....S.A....S....AS.....	I							
35	Sercala	781	LGLPEALIPVQLLWVNLT	DGLPATALGFNP	DLDIMDRP	PRSPKEPLISGWLF	FRYMAI				
Serca2a	780	..F.....	NK..N.....L..								
Serca2b	780	..F.....	NK..N.....L..								
Serca3a	781	.....	EK..N.R.A.....L..							
40	Serca3b	781	.....	EK..N.R.A.....L..						
	Serca3c	781	.....	EK..N.R.A.....L..						
Sercala	841	GGYVGAATVGAA	AAWWFLYAEDGPHVSYHQLTHFM	QCTEHNPEFDGL	CEVFEA	PEPM	MTMA				
Serca2a	840	.C.....IA.DG..R..FY..S..L..K.D..D..V..AI..S.Y.....									
45	Serca2b	840	.C.....IA.DG..R..FY..S..L..K.D..D..V..AI..S.Y.....								
	Serca3a	841	.V..L..A..T.....DAE..Q.TFY..RN.LK.S.D..L.A.I..K..SRF.T...								
	Serca3b	841	.V..L..A..T.....DAE..Q.TFY..RN.LK.S.D..L.A.I..K..SRF.T...								
	Serca3c	841	.V..L..A..T.....DAE..Q.TFY..RN.LK.S.D..L.A.I..K..SRF.T...								
50	Sercala	901	LSVLVTIEMCNALNSL	SENQSLLRMP	PWVN	IWLGSICL	SM	SLHFL	IYVDPL	PMIF	KLR
Serca2a	900	.....E..V.....	E...L..QIT							
Serca2b	900	.....E..V.....	E...L..QIT							
Serca3a	901	.....V.....L.P...AVVM..A.....L.P...L..QVT								
Serca3b	901	.....V.....L.P...AVVM..A.....L.P...L..QVT								
55	Serca3c	901	.....V.....L.P...AVVM..A.....L.P...L..QVT							

Sercala 961 ALDFTQWLMVLKISLPVIGLDELLKFIARNYLEG
Serca2a 960 P.NL.....LM..T...V.....QPAILE
Serca2b 960 P.NL.....LM..T...V.....QPGKECVQPATKSSCSLSACTDGISWP
Serca3a 961 P.SGR..GV..QM.....L...A..YLS..HMDÉKKDLK
5 Serca3b 961 P.SGR..GV..QM.....L...A..YLS..HMD.VLGTFMQARSRQLPTTSRTPYHTGKK
Serca3c 961 P.SGR..GV..QM.....L...A..YLS..HMD.VLGTFMQARSRQLPTTSRTPYHTGLA

10 Serca2b 1020 FVLLIMPLVVWVYSTDTNFSDMFWS
Serca3b 1021 GPEVNPGSRGESPVWPSD
Serca3c 1021 SWKKRT

Figure 2

Sequence similarity of Serca2 proteins in mammalian species

	Mouse_2a	1	MENAHTKTVEEVLGHFGVNESTGLSLEQVKKLKERWGSNELPAEEGKTLLELVIEQFEDL
5	Mouse_2b	1	.....
	Rat_2b	1	.....
	Rat_2a	1	.....
	Dog_2a	1	.....
	Cat_2a	1	..... Y
10	Pig_2a	1	.....
	Pig_2b	1	.....
	Human_2b	1	.....
	Human_2c	1	.....
	Human_2a	1	.....
15	Rabbit_2a	1	.....
	Rabbit_2b	1	.....
	Mouse_2a	61	LVRILLAAACISFVLAWFEEGEETITAFVEPFVILLILVANAIIVGVWQERNAENAIEALK
	Mouse_2b	61	.....
20	Rat_2b	61	.....
	Rat_2a	61	.....
	Dog_2a	61	.....
	Cat_2a	61	.....
	Pig_2a	61	.....
25	Pig_2b	61	.....
	Human_2b	61	.....
	Human_2c	61	.....
	Human_2a	61	.....
	Rabbit_2a	61	.....
30	Rabbit_2b	61	.....
	Mouse_2a	121	EYEPEMGKVYRQDRKSVQRIKAKDIVPGDIVEIAVGDKVPADIRLTSIKSTTLRVDQSL
	Mouse_2b	121	.....
	Rat_2b	121	.....
35	Rat_2a	121	.....
	Dog_2a	121	.....
	Cat_2a	121	.....
	Pig_2a	121	.....
	Pig_2b	121	.....
40	Human_2b	121	.....
	Human_2c	121	.....
	Human_2a	121	.....
	Rabbit_2a	121	.....
	Rabbit_2b	121	.....
45	Mouse_2a	181	TGESVSVIKHTDPVPDPRAVNQDKKNMLFSGTNIAAGKAMGVVVATGVNTEIGKIRDEM
	Mouse_2b	181	.....
	Rat_2b	181	.....
	Rat_2a	181	.....
50	Dog_2a	181	.....
	Cat_2a	181	.....
	Pig_2a	181	.....
	Pig_2b	181	.....
	Human_2b	181	.....
55	Human_2c	181	.....
	Human_2a	181	.....
	Rabbit_2a	181	.....
	Rabbit_2b	181	.....

	Mouse_2a	241	ATEQERTPLQQKLDEFGEQLSKVISLICIAVWIINIGHFNDPVHGGSWIRGAIYYFKIAV
	Mouse_2b	241	.....
5	Rat_2b	241	.....
	Rat_2a	241	.....
	Dog_2a	241	.....
	Cat_2a	241	.....
	Pig_2a	241	.....
	Pig_2b	241	.....
10	Human_2b	241	.....
	Human_2c	241	.....
	Human_2a	241	.....
	Rabbit_2a	241	.....
	Rabbit_2b	241	.....
15	Mouse_2a	301	ALAVAAIPEGLPAVITTCLALGTRRMAKKNAIVRSLPSVETLGCTSVICSDKTGTLTTNO
	Mouse_2b	301	.....
	Rat_2b	301	.....
	Rat_2a	301	.....
20	Dog_2a	301	.....
	Cat_2a	301	.....
	Pig_2a	301	.....
	Pig_2b	301	.....
	Human_2b	301	.....
25	Human_2c	301	.....
	Human_2a	301	.....
	Rabbit_2a	301	.....
	Rabbit_2b	301	.....
30	Mouse_2a	361	MSVCRMFIILDKVEGDTCSLNEFSITGSTYAPIGEVQKDDKPVKCHQYDGLVELATICLC
	Mouse_2b	361	.....
	Rat_2b	361	.....T.....
	Rat_2a	361	.....T.....
	Dog_2a	361	.....R.....S.....T.....H.....
35	Cat_2a	361	.....T.....H.....
	Pig_2a	361	.....T.....H.....
	Pig_2b	361	.....T.....H.....
	Human_2b	361	.....R.....T.....H.....N.....
	Human_2c	361	.....R.....T.....H.....N.....
40	Human_2a	361	.....R.....T.....H.....N.....
	Rabbit_2a	361	.....D.....T.....H.....
	Rabbit_2b	361	.....D.....T.....H.....
	Mouse_2a	421	NDSALDYNEAKGVYEKVGEATETALTCLVEKMNVFDTELKGLSKIERANACNSVIKQLMK
45	Mouse_2b	421	.....
	Rat_2b	421	.....
	Rat_2a	421	.....
	Dog_2a	421	.....
	Cat_2a	421	.....K.F.....
50	Pig_2a	421	.....
	Pig_2b	421	.....
	Human_2b	421	.....
	Human_2c	421	.....
	Human_2a	421	.....
55	Rabbit_2a	421	.....
	Rabbit_2b	421	.....

Mouse_2a	481	KEFTLEFSRDRKSMHSVYCTPNKPSRTSMSKMFVKGAPEGVIDRCTHIRVGSTKVPMTPGV
Mouse_2b	481	.....
Rat_2b	481	.....
Rat_2a	481	.....
5 Dog_2a	481	.....
Cat_2a	481	.....
Pig_2a	481	.....
Pig_2b	481	.....
Human_2b	481	.....
10 Human_2c	481	.....
Human_2a	481	.....
Rabbit_2a	481	.....
Rabbit_2b	481	.....
15 Mouse_2a	541	KQKIMSVIREWGSGSDTLRCLALATHDNPLKREEMHLEDSANFIKYETNLTFGVCGMLD
Mouse_2b	541	.....
Rat_2b	541	..... R.
Rat_2a	541	..... R.
Dog_2a	541	... V..... R. N.
20 Cat_2a	541	... V..... R. N.
Pig_2a	541	..... MR. N.
Pig_2b	541	..... MR. N.
Human_2b	541	..... R.
Human_2c	541	..... R.
25 Human_2a	541	..... R.
Rabbit_2a	541	..... R. K.
Rabbit_2b	541	..... R. K.
30 Mouse_2a	601	PPRIEVASSVKLCRQAGIRVIMITGDNKGTAVAICRRIGIFGQDEDVTSKAFTGREFDEL
Mouse_2b	601	.....
Rat_2b	601	.....
Rat_2a	601	.....
Dog_2a	601	.....
Cat_2a	601	.....
35 Pig_2a	601	.....
Pig_2b	601	.....
Human_2b	601	.....
Human_2c	601	.....
Human_2a	601	.....
40 Rabbit_2a	601	..... E. A.
Rabbit_2b	601	..... E. A.
Mouse_2a	661	SPSAQRDACLNRCAFARVEPSHKSKIVEFLQSFDEITAMTGDGVNDAPALKSEIGIAMG
Mouse_2b	661	.....
45 Rat_2b	661	.....
Rat_2a	661	.....
Dog_2a	661	.....
Cat_2a	661	.....
Pig_2a	661	N. E.
50 Pig_2b	661	N. E.
Human_2b	661	N. A.
Human_2c	661	N. A.
Human_2a	661	N. A.
Rabbit_2a	661	N. A.
55 Rabbit_2b	661	N. A.

	Mouse_2a	721	SGTAVAKTASEMVLADDNFSTIVAAVEGRAIYNNMKQFIRYLISSNVGEVVCIFLTAAL
	Mouse_2b	721	.....
	Rat_2b	721	.....
	Rat_2a	721	.....
5	Dog_2a	721	.....
	Cat_2a	721	.....
	Pig_2a	721	.....
	Pig_2b	721	.....
	Human_2b	721	.....
10	Human_2c	721	.....
	Human_2a	721	.....
	Rabbit_2a	721	.....
	Rabbit_2b	721	.....
15	Mouse_2a	781	GFPEALIPVQLLWVNLTGGLPATAALGFNPPDLDIMNKPPRNPKEPLISGWLFFRYLAIG
	Mouse_2b	781	.....
	Rat_2b	781	.....
	Rat_2a	781	.....
	Dog_2a	781	.....
20	Cat_2a	781	.....
	Pig_2a	781	.....
	Pig_2b	781	.....
	Human_2b	781	.....
	Human_2c	781	.....
25	Human_2a	781	.....
	Rabbit_2a	781	.....
	Rabbit_2b	781	.....
30	Mouse_2a	841	CYVGAATVGAAWWFIAADGGPRVSFYQLSHFLQCKEDNPDFDGVDCAIFESPYPMTMAL
	Mouse_2b	841	.....
	Rat_2b	841	.....
	Rat_2a	841	.....
	Dog_2a	841	.....
	Cat_2a	841	.....
35	Pig_2a	841	.....
	Pig_2b	841	.....
	Human_2b	841	.....
	Human_2c	841	.....
	Human_2a	841	.....
40	Rabbit_2a	841	.....
	Rabbit_2b	841	.....
45	Mouse_2a	901	SVLVTIEMCNALNSLSENQSLRMPPWENIWLGSICLMSMSLHFLILYVEPLPLIFQITP
	Mouse_2b	901	.....
	Rat_2b	901	.....
	Rat_2a	901	.....
	Dog_2a	901	.....
	Cat_2a	901	.....
	Pig_2a	901	.....
50	Pig_2b	901	.....
	Human_2b	901	.....
	Human_2c	901	.....
	Human_2a	901	.....
	Rabbit_2a	901	.....
55	Rabbit_2b	901	.....

Mouse_2a	961	LNLTQWLMVLKISLPVILMDETLKFVARNYLEQPAILE-----
Mouse_2b	961	.....GKECVQPATKSSCSLSACTDGISWPF
Rat_2b	961	.....-GKECA.....P.....
Rat_2a	961	.....-AILE
5 Dog_2a	961	.....-AILE
Cat_2a	961	.....-AILE
Pig_2a	961	.....-AILE
Pig_2b	961	.....-GKEC.....-F.....
Human_2b	961	..V.....-GKEC.....-F.....
10 Human_2c	961	..V.....VLSSL
Human_2a	961	..V.....-AILE
Rabbit_2a	961	..V.....-AILE
Rabbit_2b	961	..V.....-GKEC....PQ....W....E.V....
15 Mouse_2b	1021	VLLIMPLVVWVYSTDTNFSDMFWS
Rat_2b	1020	.....
Pig_2b	1019	.....
Human_2b	1019	.....
20 Rabbit_2b	1019	....V...M.....LL..

Fig. 3 Targeting construct for Serca2 flox gene modification. Sequence information.

____ Serca2 gene _____

5 LoxP site 1: Intron 1
 underlined sequence = loxP site and cloning sequence

Exon I (partial)

CACGGGGCTGAGCTTGGAGCAGGTCAAGAAGCTCAAGGAGAGATGGGGCTCCAAACGgttaggtgcggggcg
 cggggctgcagcggcgccgcggcccgagcgccaagaagatggctgaccggctccacctcgatgggg
 gcttggctcgccgcggcccgacgctgcgagaggccgggtccacgcgcgggtctggccatcgccg
 10 accttaggggtctcgaaatcaagcttatcgataccgtcgatcgacccgtcgatccggatcccgatggggggggccgggtaccccgaa
gatcaattcgagactcgcccgggatcgatcccgaaaccctaataATAACTTCGTATAATGTATGCTATACG
AAGTTATT taggtccctcgacctgcagccaaagctccGGGGAtctcgagccgggtaccccccggcc
 ctcagcgagtccggattggggggggagaggaggtggaaaggaggagggttctcgccgtggctg
 agtcccccgccgatattatggcgatgtttgagaaaccctcgacccgttctgtgtccccaaa
 15 gttgcacatctggcagaagtgtatgaccctgatcccgatgggtcaataatttctcgccgtatcaaagtggagacagatt
 cggcagttcccgaggccactgattaccagggtcaataatttctcgccgtatcaaagtggagacagatt
 gttgtacgttccatcacccatccatcccgccattcagacaacgtatgggtgaatttagcagttttataaaa
 agcgctaatacaatcttcattttttttc

____ Serca2 gene _____

20 LoxP site 2: Intron 3 5' of genomic XcmI site
 underlined sequence = loxP site, cloning sites and partial HSV-TK

ccaatttttattcttagaacattgtattttatactgtataggaaatgtaaaaatcatacagtacttgc
 ttaggtttcacaaaactgataactgtatggttcaattatgtattcacacgttttaagtctgaccaggG
GATCCggaaaccctaataATAACTTCGTATAATGTATGCTATACGAAGTTATT taggtccctcgacctgcag
 25 cccaaactgtatccctcgatcgagcccaactgtgtttccgccteagaagccatagacggccaccgcac
 cccacatgcctgtattgtcttccaaatcctcccttgcgtctccgcggcccccaccccccagaata
 gaatgacacactactcgacaaatgcgatgcatttcttatttagaaaggacagtggagtgac
 cttccagggtcaaggaaaggcacggggggggggggcaaaacaaacaaatggctggcaactagaaggc
 30 ggctgatcaqcgactctaaqcttagaaattgtatccctcgacccatggctggcaactagaaggc
 gatgcgtgcgatccgggagccgqat*ccgtaaagcacqgqaaagccg*ccggccattccggccca
 ttttccatcgcaatatcacgggttagccaaacgctatgt*ctgataagccgtccggccacacccaa*ccggcca
 caaact*atqaaatcca*aaaaagccggccattttccacc*atqatttt*ccggcaagcaaggc
 35 cattgggtcaccgac*aga*catt*tccgt*c*ggcattgcgc*cctt

____ HSV-TK Neo antibiotics cassette _____

35 LoxP site 3: Intron 3 5' of genomic XcmI site
 underlined sequence = loxP site, cloning sites and partial Neo gene

gtttcat*accacccgcgggtccggc*gatat*ttcaccttgc*ag*ccgtgtgtgggtaaatg
ttcgcgattttcgaaaggcccc*agcaccccccactgtatcgatccgggtacgttagacgatatcgat
gcccgcgaaaccacccaggccaccacgcaaggttcgatgtgtgggtttcccatcc*gtggggac*gtctatataaa
 40 acc*gcagtagccgtggcatttctgtccggggactccgtggctttgtgtccggcgaggccgca
 cggccgtacgtccgttgcctatggccgcgagaacccgcgacgcgtggatcgaaacgcgacacgcgtqttgatggccgg
 ggtacgaaaggccatcgccgttctacaaggccgtggccgaaagggtgcgggagtttacgcaccaagatct
 gccggcacgttgcgttgcgttgcgtggatccgggtcgatccgggttgcggatccggccacacgcgtcacc
 ttaatatgcgaaatggacccatcgccgtggatccgggtcgatccgggtcgatccggccacacgcgtcacc
 45 gacgctggccgggtttgtcgacattgggtggaaacatccaggcgtggatccaggcgtggatccaggcgtggatcc
 tcttgcggaaaaccacactgtcgacattgggtggaaacatccaggcgtggatccaggcgtggatccaggcgtggatcc
 tcttgcggaaaaccacactgtcgatccggaaaccctaataATAACTTCGTATAATGTATGCTATACGAA
GTGTTAGGTCCCTCGACCTGCAGCCAAAGCTGATCCTCTAGAAGTCGACCTCGATGTCGATGGGTGATGGCCCTATGAAA
acattagcttagagg

Fig. 4A Schematic representation of genetic manipulation.

Serca2 (*atp2a2*) gene modification

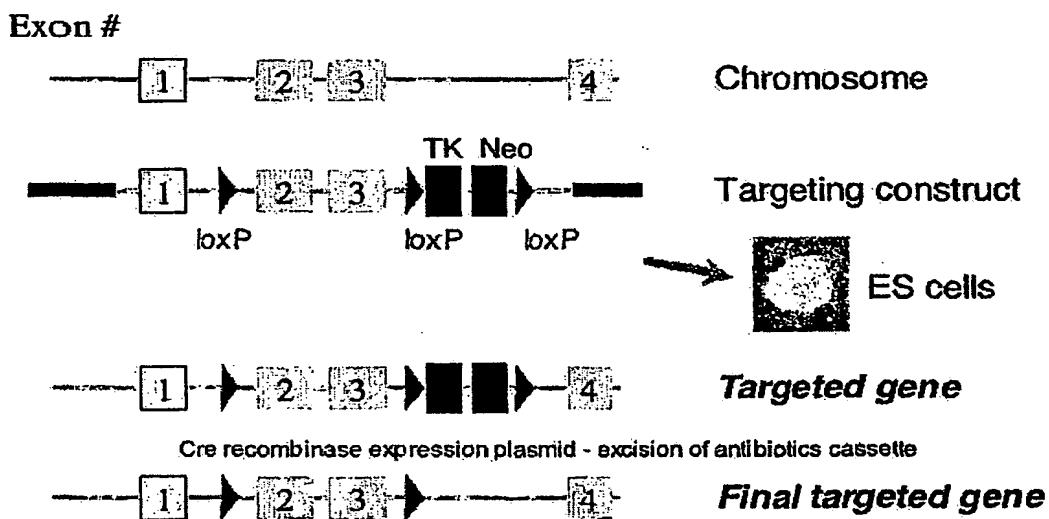


Fig 4 B: Verification of Serca locus targeting events offspring from chimeric mice.

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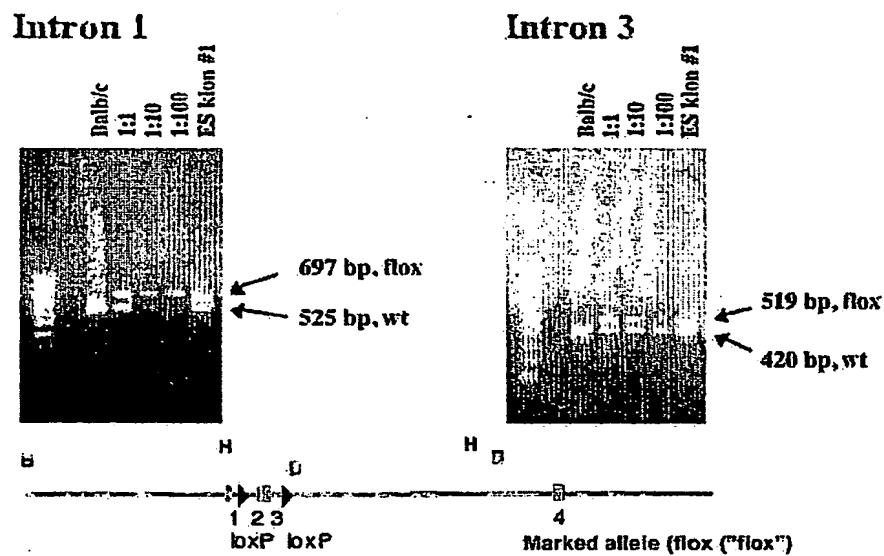


Fig. 5 Specificity of gene deletion in a test model.



10 Control A = wt ES cells (14.1a)

Control B = Upper panel: Serca2^{wt/flox} ES cells

Middle panel: Left ventricle from MLC-2V-Cre mice

Lower panel: Serca2^{wt/del} ES cells

LV = heart left ventricle

15 RV = heart right ventricle

EDL = extensor digitorum longus muscle (fast-twitch skeletal muscle)

Soleus = soleus muscle (slow-twitch skeletal muscle)

Other tissues as indicated.

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Fig. 6 Cardiac ANP mRNA expression.

5



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Fig. 7 Serca2 protein expression.

5

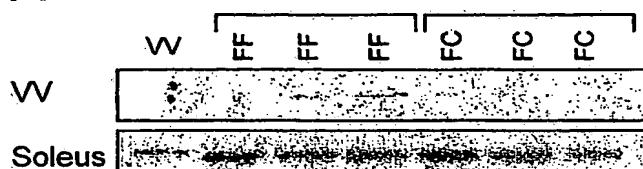
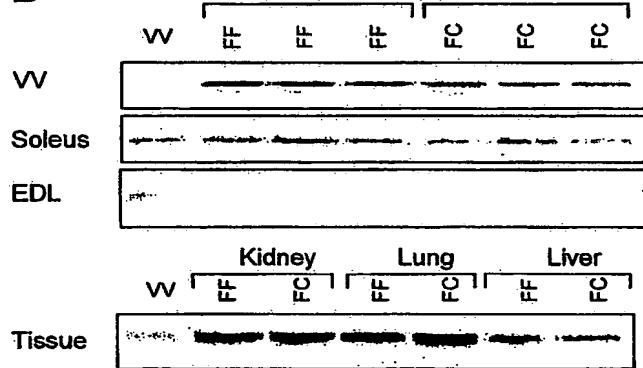
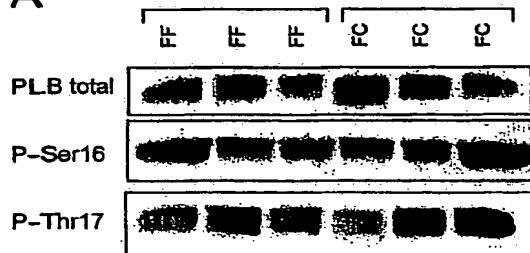
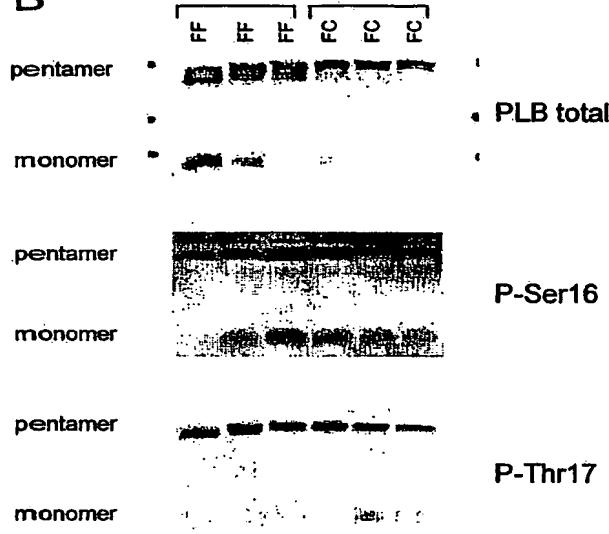
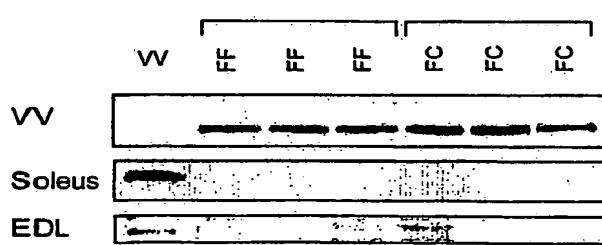
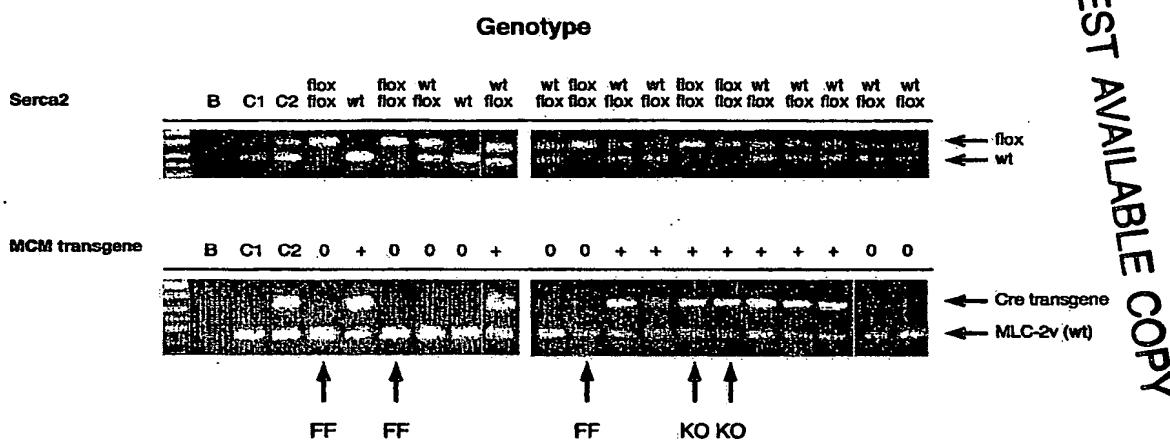
A**B**

Fig. 8 Compensatory mechanisms in Serca^{flx} MLC-2v-Cre mice.**A****B****C**

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Figure 9 **Genotypes PCR**

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10 Generation of animals with $\text{Serca2}^{\text{flox}}$ and MCM transgene alleles.

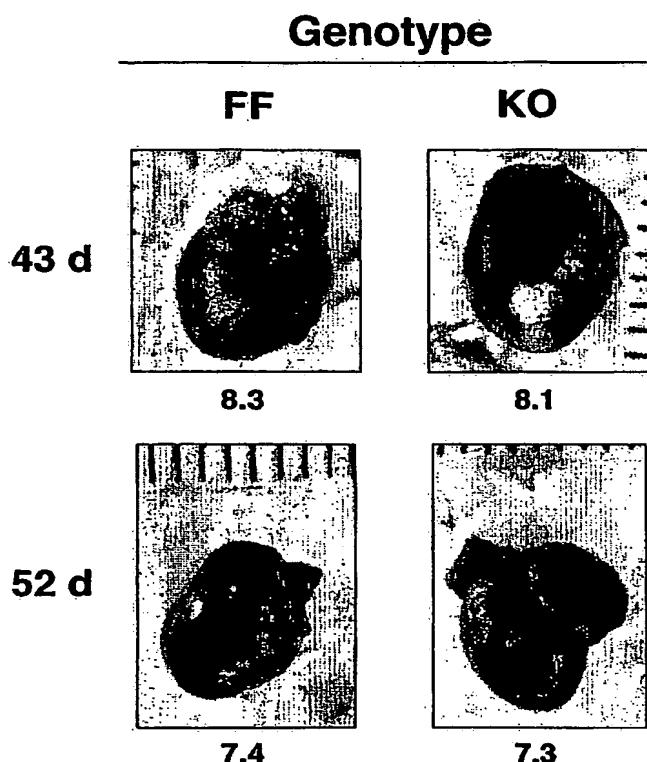
Genotypes FF, $\text{Serca2}^{\text{flox/flox}}$, KO, $\text{Serca2}^{\text{flox/flox}}$ MCM

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Figure 10

Heart morphology

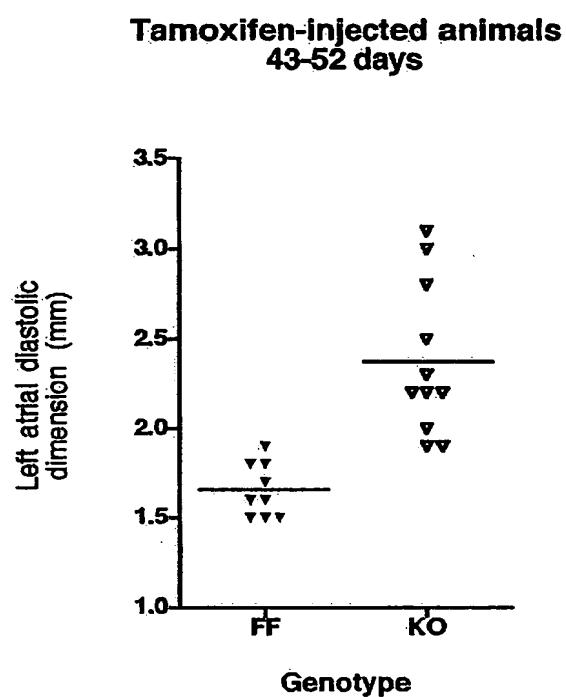
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Figure 11 Pilot series left atrial diastolic diameter.

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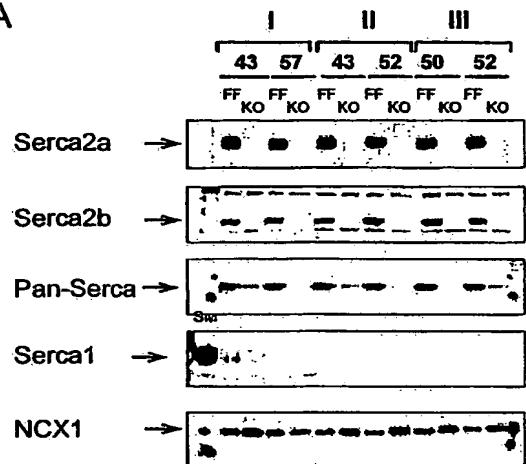
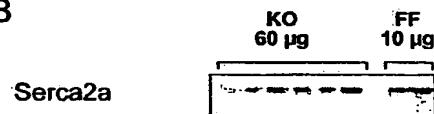


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Figure 12 Serca protein content in tamoxifen-induced FF and KO mice

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A**B**

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